[ABSTRACT]

A binderless stimulable phosphor screen comprising a vapor deposited storage phosphor layer on a support and a protective layer wherein the vapor deposited phosphor is needle shaped with voids between the needles, wherein the voids are at least partially filled with polymeric compounds selected from the group consisting of silazane and siloxazane type polymeric compounds, mixtures thereof and mixtures of said silazane or siloxazane type polymeric compounds with compatible polymeric compounds.